REMARKS

Claims 33-54 are pending. Claim 33 has been amended. Claims 45 and 47-54 have been canceled. The amendments are supported in the Specification as filed at least on page 3, lines 11-20, and page 16, line 19 – page 17, line 7. Applicant requests reconsideration of the pending claims.

Antal et al. in view of Frungel

Claims 33, 35, and 37-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Antal et al. (U.S. Patent No. 4,861,302 hereinafter "Antal") in view of Frungel (U.S. Patent No. 3,529,208).

In rejecting the claims, the Examiner writes in part the following:

> It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilize[d] the changeover valve of Antal for the different gases without using a pump of Frungel in order to aid the switching over from flushing gas to fill gas and further reduce the cost of manufacturing the light source and further enable the lamp to modify the light intensity and light distribution.

Applicant submits that Antal is not properly combinable or modifiable with Frungel to show flowing of gas without a pump because the intended function of Antal is destroyed by such a combination or modification, and instead Antal teaches away from such a combination.

Antal discloses the following:

> The invention is based on the discovery that the gas purity achievable at the end of the pumping cycle and the stability of the charging pressure may be considerably influenced by the pressure stages adjusted or set during flushing and pumping out of the gas. (Antal, col.2, lines 24-29).
>
> By virtue of the fact that the supply of the gas takes place simultaneously with the pumping out a more intensive through-flushing is achieved because the continuous gas stream flowing [ ] through one of the exhaust tubes drives contaminations before it . . . and the contaminations are driven relatively rapidly through the other exhaust tube of the discharge vessel out of the interior of the latter. In this way not only is the speed of removal of contaminations increased but so also is the efficiency of the latter because the flow conditions arising within the discharge vessel prevent the contaminations from remaining in the discharge tube and in the corner regions bounded by the closure elements. (Antal, col.2, lines 52-65).

Antal further discloses that "the flushing gas or filling gas is . . . supplied via one of the exhaust tubes into the discharge vessel which is connected to the pump and simultaneously it is pumped via the other exhaust tube," (Antal, col.2, lines 43-51) and that

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the "flushing gas or fill gas is supplied and pumped out" (Antal, col.4, lines 24-26). Applicant could not find any disclosure or suggestion in Antal to flow gases rather than pump gases. Thus, Antal only discloses that a gas is pumped in and out of the discharge vessel.

Furthermore, Antal's intended function is to rapidly and efficiently remove contaminations from the discharge vessel. (Antal, col.2, lines 52-65). Flowing gas rather than pumping would destroy Antal's intended function of rapidly and efficiently removing contaminations. Instead, Antal teaches away from a combination or modification to flow gas, which would relatively slowly remove contaminations.

In contrast, Applicant discloses that in one embodiment of the present invention, it is "not necessary to use a vacuum pump" for simultaneous exchange of gases. Valves may be opened and closed to flow new and old gases into and out of the light source tube. (Specification as filed, page 20, lines 30-31). Applicant further discloses that "the characteristics of the light source can be modulated when the light source is in use" (Specification as filed, page 3, lines 18-20) and that if "a user desires to modulate the amount of photonic energy emitted, a user would change the combination of gases to achieve the desired level of photonic energy emitted by the light source" (Specification as filed, page 16, line 34-page 17, line 3).

Applicant has reviewed the cited references and could find no teaching or suggestion therein, which anticipates or renders obvious amended Claim 33. The cited references teach completely "flushing" and "removing" (Antal, col.2, lines 52-65) or "evacuating" (Frungel, col.2, lines 65-66) (Tsunekawa, col.1, lines 42-44) contaminant gases.

In contrast, amended Claim 33 recites "opening the inlet and outlet valves to provide for a simultaneous modification of gases between said first electrode and said second electrode" and "flowing a portion of a first gas from between said first and second electrodes out of the light source through the outlet valve without a pump, and simultaneously flowing a second gas through the inlet valve into between said first and second electrodes without a pump, said first gas being different from said second gas". Therefore, because the cited references do not disclose or suggest all the limitations of Claim 33, Claim 33 is patentable over the cited references.

Claims 35 and 37-44 depend from Claim 33 and include additional limitations that distinguish them over the cited references. Therefore, Claims 35 and 37-44 are allowable

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over the cited references, in particular Antal in view of Frungel, for at least the same reasons provided above with respect to Claim 33.

Antal et al. in view of Frungel and further in view of Tsunekawa et al.

Claims 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Antal in view of Frungel and further in view of Tsunekawa et al. (U.S. Patent No. 4,303,290).

Tsunekawa is cited for teaching the use of inert gases for the purpose of evacuating a light source as quickly and easily as possible. Thus, Tsunekawa does not remedy the deficiencies of Antal and Frungel noted above.

Claims 34 and 36 depend from Claim 33 and include additional limitations that distinguish them over Antal in view of Frungel and further in view of Tsunekawa. Therefore, Claims 34 and 36 are allowable for at least the same reasons provided above with respect to Claim 33.

Antal et al. in view of Dolenga et al.

Claims 45 and 47-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Antal et al. (U.S. Patent No. 4,861,302 hereinafter "Antal") in view of Dolenga et al. (U.S. Patent No. 4,005,324 hereinafter "Dolenga").

Claims 45 and 47-54 have been canceled, thus making the rejections moot.

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CONCLUSION

For the above reasons, pending Claims 33-44 are now in condition for allowance and allowance of the application is hereby solicited. If the Examiner has any questions or concerns, the Examiner is hereby requested to telephone Applicant's Attorney at (949) 752-7040.

Certification of Facsimile Transmission

I hereby certify that this paper is being facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Tina Kavanaugh

March 23, 2005

Respectfully submitted,

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